

EDMS FCG

ACMS Status Meeting

19 -21 May 1998

Executive Summary

On the 19th through the 21st of May 1998, the Army Materiel Command (AMC) Engineering Data Management (EDMS) Functional Coordinating Group (FCG) held a meeting at the Army Materiel Command, Alexandria, VA. Mr. Jim Knowles, HQ AMC, hosted the meeting. The meeting's purposes were:

- to review and revise Section 6, Table III, ACMS requirements tailoring restrictions, of the draft *Performance Specification, Automated Configuration Management System (ACMS)*, dated 13 March 1998;
- to discuss and reach consensus or highlight issues concerning an AMC implementation strategy for ACMS; and
- to present the Task Force results to Ms. Renata Price and obtain AMC feedback on what should happen next.

Mr. Gordon Ney from the U.S. Army Material System Analysis Activity (AMSAA) chaired the meeting. Approximately 20 representatives from the various Major Subordinate Commands (MSCs) and depots attended the meeting. Appendix A provides a list of attendees. The meeting agenda is given in Appendix B. Appendix C contains the presentation given to Ms. Price.

As a result of this meeting, the Task Force identified that final changes that are needed. All MSCs support the specification. All comments have been resolved and coordination is complete on the specification. Ms. Price directed that an AMC IPT be established, under the leadership of the Program Manager for Engineering Data Management Systems, to carry out the AMC ACMS implementation strategy as presented and discussed during this meeting. She committed to trying to find the funds necessary to carry out this strategy.

Opening Remarks - (19 May 98)

Mr. Ney opened the meeting on Tuesday, May 19, 1998 by welcoming the attendees. He reviewed the agenda for the meeting by stating that the first day would be spent finalizing the ACMS Performance Specification and reviewing the ACMS summary briefing that would be presented to Ms. Price on the 21st. Wednesday would be used to discuss an ACMS implementation strategy and finalizing the presentation for Ms. Price. Ms. Price would then be briefed during the morning of the 21st.

ACMS Performance Specification Review

Mr. Ney began this portion of the meeting by stating that since no MSC input was received concerning changes need to the section 6, Table III, ACMS requirements tailoring restrictions, he had taken upon himself to review the requirements and drafted a set of recommended changes. These changes were posted to the web and Task Force members had been notified that these changes would be used for discussion purposes at the meeting. The changes were based on the assumption that the operational requirements contained in section 3.1 were enterprise wide and therefore would not be initially included in the review. The requirements in sections 3.2 through 3.4 were included and would be reviewed in detail. Once these proposed changes had been reviewed, the discussion would turn to other changes that the members thought needed to be made.

An Access database was used to display each requirement and the suggested changes, and to record and display the decision reached and the resolution of the changes to which the Task Force agreed. A printout from the database that shows the decisions reached is given in Appendix D. At the conclusion

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of this review, two requirements from section 3.1 were identified as enterprise unique requirements. They were 3.1.2.6.1 and 3.1.3.3.1, both dealing with reports, one for configuration management and the other for the Tech Loop.

Only one additional set of changes was recommended and it concerned several verification methods indicated in table 1 of section 4. These verification code changes are summarized below.

Paragraph Number	Title	From	To
3.1.2.6.2	Provide reports	T, E	T, A
3.1.3.3.1	Generate reports	T, E	T, A
3.2.3.1	Provide on-line help	T, E	E
3.2.3.2	Provide on-line documentation	T, E	E
3.2.3.3	Include help table of contents, examples, and demonstrations	T, E	E
3.3.1	Require minimal basic training	T, E	E
3.3.2	Require minimal administrative training	T, E	E
3.3.5	Meet performance goals	T	A

Besides the mechanics of making the changes as agreed to at this meeting, two outstanding actions need to be completed. **ACTION: The MSC representatives are to identify their command depot maintenance systems and their field maintenance systems that need to be interfaced with ACMS and forward them to AMSAA by COB 2 Jun 98.**

Each organizational representative was then given a chance to express their thoughts about the ACMS Performance Specification. Their thoughts are summarized below:

- AMCOM – The performance specification is OK. It meets the requirements that we currently have.
- STRICOM – The performance specification is OK. It addresses small command issues.
- CECOM – The performance specification contains requirements above and beyond what CECOM now has, which will need to be addressed. CECOM is in agreement with requirements. CECOM estimates that their existing system meets 85% of enterprise wide requirements.
- TACOM-ARDEC/ TACOM-Warren / TACOM ACALA (Team TACOM) – TACOM will use the ACMS performance specification as part of TACOM IPT. Champions for it are MG Beauchamp and Mr. Pandu Rao
- SSCOM – The performance specification is a good guidance document. Suggest use as mil std guidance document not performance specification.
- RRAD - Need to include depot and soldier in implementing ACMS.
- TACOM-ARDEC Watervliet Arsenal – The performance specification is needed for Manufacturing. Benet Laboratory will follow TACOM team lead.
- CBDCOM – The performance specification is a good document.
- ARL – The ACMS will be better than TD/CMS.
- TECOM – Need ACMS to help manage test data.

ACMS Summary Briefing

Mr. Ney presented the briefing charts he would use during the presentation to Ms. Price. A suggestion to include a chart on how ACMS supports Acquisition Reform was made and will be integrated into the presentation.

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ACMS Implementation Strategy - (20 May 98)

TACOM IPT Status

Patricia Martinez gave a presentation on the status of the TACOM IPT effort to implement an ACMS. (The charts she used are included in the presentation given to Ms. Price in Appendix C.) Some of the points she made during the briefing are:

- MG Beauchamp is a champion for this effort.
- Since TACOM has three main sites with differing business practices requiring interoperability, TACOM is a microcosm of the problems that AMC will face and could be considered a pilot for AMC.
- Time frame for implementation is not year 2000 limited. TACOM has authorized a fix for the year 2000 problem within TD/CMS.
- Schedule is challenging
 - Market Survey - May 98
 - Solicitation - Aug 98
 - Award - Jan 99
 - System Production - 2000
- Standard System is needed with open architecture not just open API

AMCOM Implementation Strategy

Jerry Austin gave a presentation on an ACMS implementation strategy that the EDMS PMO had prepared at the request of Mr. Ney. (The charts he used are included in the presentation given to Ms. Price.) The approach is similar to the TACOM effort but is broader in scope and would have input from all the MSCs. It would use TACOM as a pilot site. The major points of the strategy are:

- Issue a contract task for a full analysis of available COTS/GOTS packages with system(s) and implementation recommendations.
- Evaluate contractor recommendations which would include application software tests for system(s) recommended.
- Issue an implementation/integration contract for HW/SW Purchases; Tailoring for ARMY and MSC unique requirements; Data Conversion; Installation; and Training.
- MSCs would be invited and were strongly encouraged to participate in the preparation of the scope of work and in the evaluation of contractor evaluations.

Mr. Austin gave the following milestones for the analysis phase:

- 5 weeks for contract award
- 1 month for contractor preparation
- 6 months for contractor analysis
- 2 months for government evaluation and selection

Mr. Austin said that the analysis and recommendation task would cost \$2.5M and that the implementation funds would need to be pursued in conjunction with the analysis phase. He said that their estimate was based on government labor rates; includes \$250K for government travel and \$150K per evaluation copy of the software.

Status of PDM Implementation at CBDCOM

Mike Cantrell gave a quick status report on CMS implementation at CBDCOM. It is now in operation. The next task is to use the workflow to automate processes. New web product is now operational for those who have a password and have a need to find, view, or print specific data. **ACTION: Mr. Ney will make**

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available a copy of the guidance Land Warfare Information Activity has provided Paul Behrens concerning security accreditation requirements.

Status of PDM Implementation at CECOM

Jose Troche gave a short status report on CECOM's PDM implementation effort. CECOM has established a target date of 30 Jun 98 to have their PDM operational. Many problems have had to be overcome in loading the new PDM system. TD/CMS data is used for bid packages, however JEDMICS and TD/CMS are out of sync. Vint Hills' data needed to be cleaned up. ATCOM data needed to be cleaned up. Needed to put all JEDMICS data into PDM. CECOM is using PC JEDMICS to get latest drawings from JEDMICS. They are also using one Graphical Output Server (GOS) to move 35,000 images a day. They will begin linking metadata to drawings in Jun 98. They are loading about 6000 ECPs. Defining workflows has not begun yet.

Mr. Troche indicated that CECOM estimates that their PDM system can do 85% of enterprise wide requirements with tweaking. Centra 2000 will screen for Ozone Depleting Compounds (ODCs). CECOM has found that Centra 2000 cannot interface with JEDMICS API. They have found that it is better and faster to use disk drives. Changes will be done in the PDM system but JEDMICS will be system of record.

Reaction by Task Force Members to EDMS PMO Implementation Strategy

TECOM - Lisa Murter, agrees with approach, reluctant to agree to support for SOW and Evaluation team.

TACOM - Warren: Patricia Martiniz, plan follows TACOM need except that timeline and scope are different

TACOM - ARDEC: Carol Sitroon, agrees in theory with strategy in terms of three defined phases, but wishes she had had more time to review and think about other alternatives. She is reluctant to agree to PM EDMS as implementer.

CBDCOM Mike Cantrell EDMS FCG participation in strategy execution is mandatory suggest a letter from HQ AMC to request participation. Good strategy as presented

TACOM-ARDEC Bob Meinhart, Benet Labs is in agreement with strategy, in agreement with TACOM IPT approach. Need easy-to-use system.

RRAD Don Smith likes strategy, plan and focus. This is a good idea for Army to consolidate efforts.

SSCOM Tony Yablonicky, Great plan.

CECOM - Suggests using contractor like CSDC which worked for CECOM. He is in agreement with overall strategy

STRICOM - Charlie Goodman, supports strategy

AMCOM - Carla Crawford, excellent Strategy, more convenient

CECOM Alternative Presented

After a phone discussion with Gary Soloman, Mr. Troche said that CECOM non concurs with the EDMS PMO strategy. He then presented an alternative approach based on the fact that CECOM has spent approximately \$600K - 800K to achieve the 85% functionality of the ACMS performance specification. Gary suggested taking the \$2.5M and improving Centra 2000 to meet the specification and then implementing it. He believes that Centra 2000 could be implemented at four MSCs within one year.

Comments on CECOM proposal:

- CBDCOM- Centra 2000 not at 85 % of functionality in his opinion.

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- AMCOM - Centra 2000 does not meet all of functionality and uncertain on implementation and therefore we need an analysis to determine suitability.
- TECOM - Centra 2000 may not be suitable for Army or as potential DOD solution
- TACOM - we need the analysis to make a selection

An analogy to the Army's experience with CMIS was raised:

- CMIS was selected in a vacuum without an analysis to determine if it met Army requirements.
- Fixes were identified to try to get it to meet Army requirements; however, the fixes did not work because of design flaws in CMIS.

At the end of the discussion, it was decided to not use the CECOM proposal since Centra 2000 will be evaluated under the analysis proposed in implementation.

Development of Task Force Recommendations

To complete the briefing for Ms. Price, the Task Force then generated the following set of recommendations:

- Task Force has approved the ACMS Performance Specification and recommends publishing with limited coordination
- AMC approve the recommended ACMS Implementation Strategy
- AMC determine funding methodology (implementation depends upon funding availability)
- AMC, EDMS FCG and EDMS PMO to brief CG, TACOM
 - obtain concurrence on implementation strategy
 - agreement to be first site from central implementation plan
- AMC issue policy guidance
 - that requires the use of the ACMS Performance Specification and the central implementation plan for all new AMC CM, DM and PDM systems acquisitions
 - for contractual application in the acquisition of electronic data

Task Force Briefing to Ms. Price - (21 May 98)

Mr. Ney began the session by introducing the Task Force members to Ms. Price. He then summarized the Task Force effort to date using the charts in Appendix C. Included in this briefing were presentations by:

- Mr. Cantrell, CBDCOM, and Mr. Troche, CECOM, who gave the status of their command's efforts to implement PDM systems;
- Ms. Martinez, TACOM, who presented the status of their IPT effort to implement an ACMS;
- Mr. Austin, EDMS PMO, who presented an AMC implementation strategy for ACMS.

Some of the questions, issues or guidance given during this session are as follows:

- Ms. Price wanted to know if the Performance Specification represents an MSC consensus and were there any dissenting voices. Mr. Ney said that it did. No one expressed a dissenting voice.
- To build customer and stakeholder support, Ms. Price suggested that we needed to brief the following:
 - Mr. Tull, Mr. Mills and a representative from CIO together;
 - MG Caldwell;
 - Mark Adams and
 - should consider briefing the ESC and the PM conferences.
- Ms Price said she was a little disappointed that the implementation strategy called for centralized evaluation and implementation effort. She had hoped that AMC would be able to issue the performance specification and each command would be able to purchase and

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implement their own system. She wanted to know if other alternatives were considered.

- Ms Price was informed that another option that had been put on the table by CECOM was to invest in making Centra 2000 meet the performance specification but had been rejected by the Task Force.
- Ms. Sitroon, TACOM-ARDEC, said that she felt she had not been given sufficient time to review and recommend alternatives. She felt that the MSCs needed to play a stronger role in the strategy.
- Other MSC opinions of content of strategy
 - AMCOM supports centralized analysis wants to make a informed decision
 - CBDCOM supports strategy being proposed.
 - STRICOM currently uses manual operations and needs CITIS access. PMs currently provide systems that do not provide interoperability. STRICOM needs a standard system approach.
 - SSCOM supports a centralized system.
 - TECOM has unique requirements. They support the specification and support the centralized approach.
 - RRAD needs a single access to MSCs. One system is needed.
- Ms. Price directed Mr. Knowles to prepare a charter for an IPT that would be made up of the representatives from the Task Force, would be headed up by EDMS PMO and would be responsible for conducting the next phase of the effort as presented and discussed during the meeting.
- Ms Price said that she would try to find the funds necessary to carry out the next phase. She does not want this group to wait for her to find the money. She wants the charter written and the group to formulate the SOW. She hopes that if all goes well that she will have found the money by the time we need it.

In conclusion, Ms. Price asked each participant if they had something they would like to add. Their responses are given below:

- TACOM - Task Force has done good work. ACMS is needed. Need to support sustainment at RRAD as an example.
- TACOM-ARDEC - Need to staff implementation plan and IPT charter.
- CBDCOM - This is a difficult group to work with Gordon has done good job.
- Benet - Sharing of data is important. Spec is good. Implementation needs require a coordinator.
- CECOM - Agrees with specification. Strategy needs to be relooked at to include vendors.
- AMCOM - Supports interoperable systems. Need to change. Team work is important
- RRAD - Need ability to exchange data among sites. Diverse commodities need ready access to information at MSC
- STRICOM: PDMs do not talk. Need to figure how to fund this. Perhaps tax the paperless office participants
- PM EDMS: 76 Million images within DOD every one is not to be shared but some of it needs to be. Combine DM, CM and repository functions within AMC. Gordon has done a monumental job.
- PM EDMS: DLA Commerical Item transfer. Reengineer documents. Unproven drawings.

Ms. Price said that this meeting had provided good dialog. She thought the Task Force had done a good job. She told Mr. Knowles take lead in recasting group and creating the IPT Charter.

Appendix A Meeting Attendees

ACMS meeting, 19 May 98 - 21 May 98

<i>name</i>	<i>org</i>	<i>off sym</i>	<i>e-mail</i>	<i>phone (com)</i>	<i>phone (dsn)</i>	<i>fax (com)</i>	<i>fax (dsn)</i>
Austin, Mr. Jerry ⁺	PM EDMS, Redstone Arsenal, AL	AMSAM-CIC-ED-P		(205) 842-6387	788-6387	(205) 842-7360	788-7360
Booker, Ms Gayle	PM EDMS, Redstone Arsenal, AL	AMSAM-CIC-ED-P	gayles@redstone.army.mil	(205) 876-8277	788-8277	(205) 842-7360	788-7360
Cantrell, Mr. Michael	CBDCOM, Aberdeen Proving Ground, MD	SCBRD-ENE-M	mrcantre@cbdcom.apgea.army.mil	(410) 671-5587	584-5587	(410) 671-3884	584-3884
Conter, Mr. Lou	AMC, Alexandria, VA	AMCCA	lconter@hqamc.army.mil	(703) 617-7775	767-7775		
Crawford, Ms Carla	AMCOM, Redstone Arsenal, AL	AMSAM-RD-SE-TD-	carlac@repos.redstone.army.mil	(205) 842-9821	788-9821	(205) 842-6119	788-6119
Goodwin, Mr. Charlie	STRICOM, Orlando, FL	AMSTI-EO	goodwinc@stricom.army.mil	(407) 384-3916	970-3916	(407) 384-3888	
Knowles, Mr. James	AMC, Alexandria, VA	AMCRDA-TE	jknowles@hqamc.army.mil	(703) 617-5100	767-5100	(703) 617-8256	767-8256
Martinez, Ms Patricia	TACOM, Warren, MI	AMSTA-TR-E/EDI	martinep@cc.tacom.army.mil	(810) 574-6067	786-6067	(810) 574-5666	786-5666
McGlone, Mr. Steve	PM FCIM, Rock Island, IL	AMXSY-A	smcglo@ria-emh2.army.mil	(309) 782-6521	793-6521	(309) 782-7170	793-7170
Meinhart, Mr. Robert	TACOM, Watervliet Arsenal, NY	AMSTA-AR-CCB-EC	meinhart@pica.army.mil	(518) 266-4102	974-4102	(518) 266-3624	974-3624
Murter, Ms Lisa	TECOM, Aberdeen Proving Ground, MD	AMSTE-ATC	emurter@atc.army.mil		298-9484		
Ney, Mr. Gordon	AMSAA, Rock Island, IL	AMXSY-A	gney@ria-emh2.army.mil	(309) 782-6586	793-6586	(309) 782-7170	793-7170
Seville, Ms Elaine	AMC, Alexandria, VA	AMCRDA-TE	eseville@hqamc.army.mil	(703) 617-9830	767-9830		
Sitroon, Ms Carol	TACOM, Picatinny Arsenal, NJ	AMSTA-AR-EDE-A	csitroon@pica.army.mil	(201) 724-6546	880-6546	(201) 724-5288	880-5288
Smith, Mr. Donald	RRAD, Texarkana, TX	SIORR	dlsmith@redriverad-emh1.army.mil	(903) 334-3823	829-3823	(903) 334-4311	829-4311
Troche, Mr. Jose	CECOM, Ft. Monmouth, NJ	AMSEL-LC-LEO-E-	troche@doim6.monmouth.army.mil	(908) 532-8843	992-8843	(908) 532-8759	992-8759
Yablonicky, Mr. Tony	SSCOM, Natick, MA	AMSSC	ayablani@natick-emh2.army.mil	(508) 233-4883	256-4883	(508) 233-4716	256-4716
Younger, Mr. Henry ⁺	PM EDMS, Redstone Arsenal, AL	AMSAM-CIC-ED-P	hyounger@redstone.army.mil	(205) 876-8251	746-8251	(205) 842-7360	788-7360
Tarbox, Guy [*]	VSE Corporation (ARL)			(703) 3292632			
Williamson, Debbie ⁺	Radian, Inc (AMCOM)				897-1682		
Price, Ms. Renata [#]	AMC, Alexandria, VA	AMCRDA-T					
Kumbar, Lee [#]	AMC, Alexandria, VA	AMCRDA-AT					

^{*} Indicates attendees who were present only on 19 May 98

⁺ Indicates attendees who were present on 20 -21 May 98

[#] Indicates attendees who were present only on 21 May 98

Appendix B

Meeting Agenda

ACMS Meeting, 19 - 21 May 1998

	19 May	20 May	21 May
1130 -1230	0800 - 0830 Introduction	0800 -1400 TACOM ACMS IPT EDMS PMO Proposed ACMS Implementation Strategy Discussion	0800 -1200 Briefings to Ms. Price - ACMS Task Force - TACOM ACMS IPT - ACMS Implementation Strategy Discussion and AMC feedback
	0830 - 1400 Complete the ACMS Performance Specification		
	Lunch	Lunch	
	1430 - 1700 Review ACMS Briefing for Ms. Price	1430 - 1700 Pull it all together	

Appendix C

Briefing to Ms. Price



Automated Configuration Management System (ACMS)

Ms. Renata Price
ADCS RDA for Science and Technology

21 May 98

Presented by:
Gordon Ney
AMSAA
DSN 793-6586

Briefing Outline

- Background
 - Current Army Environment and Problems
- ACMS
 - Task
 - Methodology
 - Summary
- Next Steps
- Task Force Recommendations

What is Configuration Management (CM)

“A management process for establishing and maintaining consistency of a product’s performance, functional, and physical attributes with its requirements, design and operational information throughout its life. ...”

(MIL STD 2549)

Current Engineering Data Statistics

AMC has:

- 6 Technical Data/Configuration Management System (TD/CMS) and 5 Joint Engineering Data Management Information Control System (JEDMICS) sites
- 8 Million images
- 5,000 Engineering Change Proposals (ECPs) / yr
- 8,500 spare parts reprocrements / yr

Current Army Environment

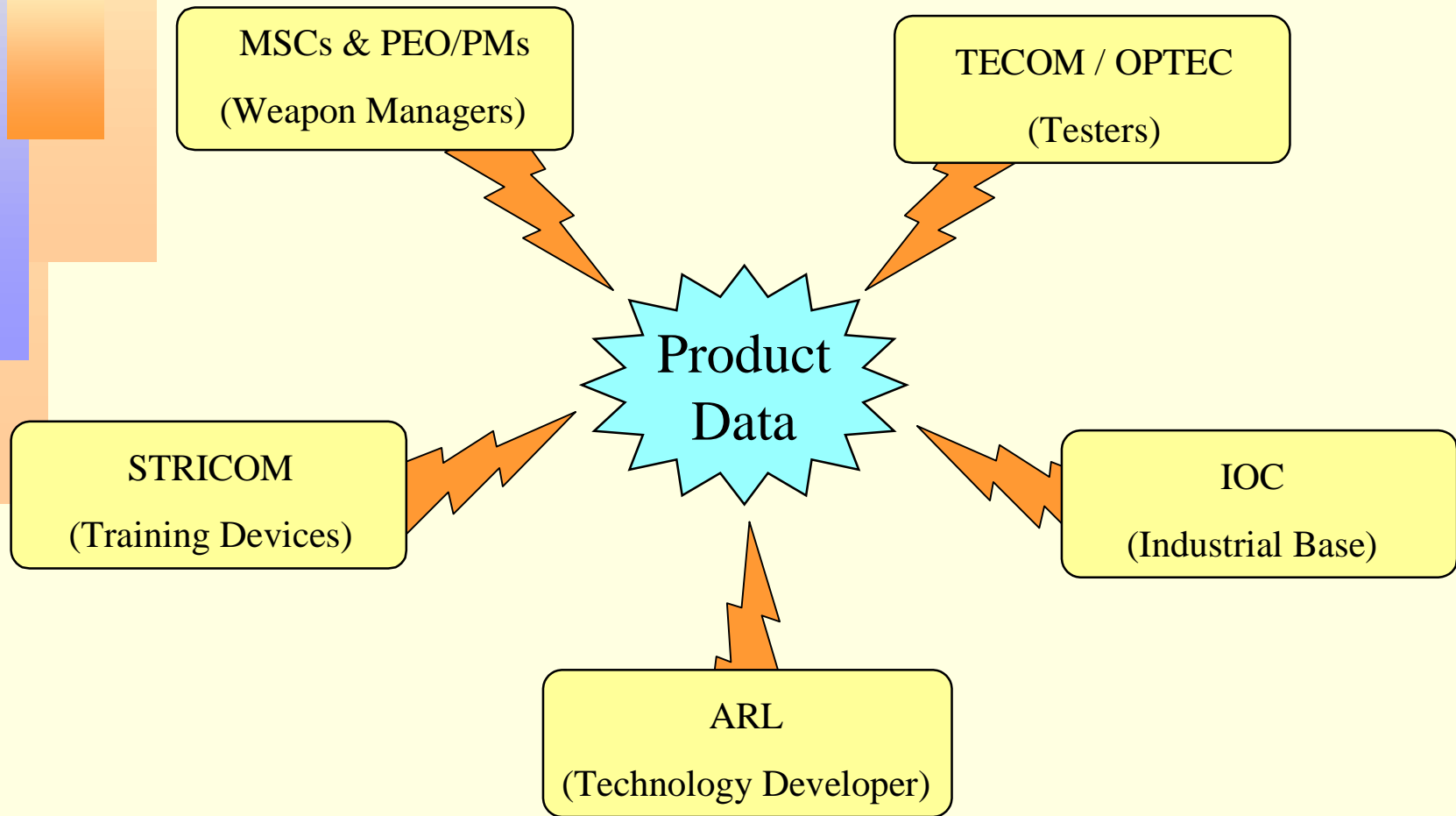
Facts

- Army legacy digital product data is primarily stored in "unintelligent" raster format
- Contractors are developing "intelligent" data that cannot be managed by TD/CMS
- TD/CMS can't manage multiple product baselines
- CITIS implementations tend to be program unique (digital delivery of product data)

Resulting Problems

- Forces new producers to "re-invent" lost data intelligence - geometry and metadata
- Army incurs additional cost for conversion of data to raster format
- Depots must rely on other unofficial data sources to support repair and modifications
- Repetitive unique solutions are expensive and provide little interoperability

Army Interoperability Needs



Analysis

- Army does not do all aspects of CM as well as it should. Current automated system (TD/CMS) can't handle all user needs.
- Army must switch from a “drawing” to “product” perspective.
- Army must provide access to all product data required (not just the two dimensional images of record) to support a product throughout its life cycle.
- Complete life cycle access to product data is only possible if the Army practices cradle to grave configuration management of product data.

Solution

Need an automated configuration management system that:

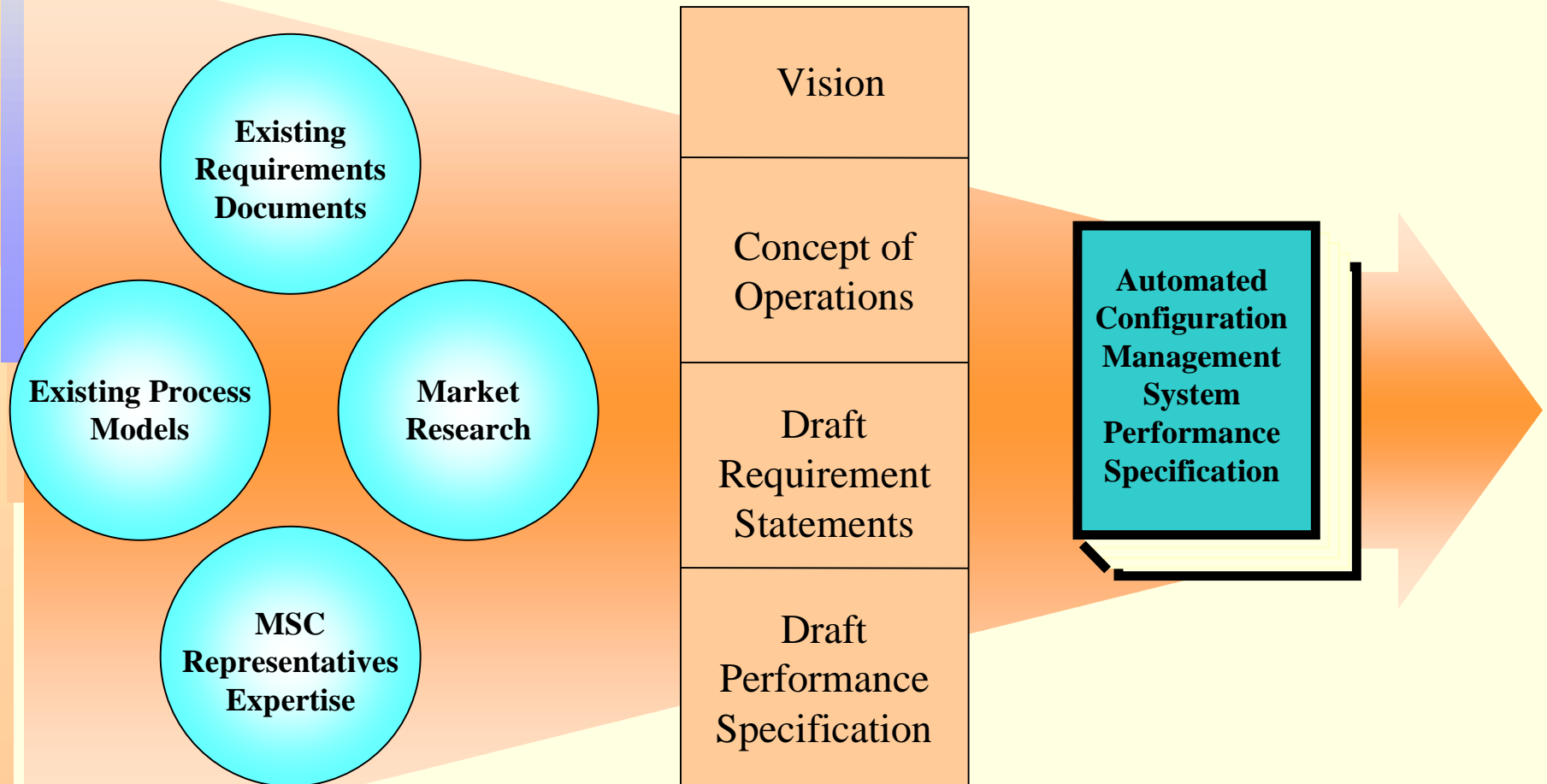
- Knows about all product related data
- Can accept and manipulate “intelligent” data and manage multiple product baselines
- Is compatible with Industry practices
- Provides a standard means for the delivery of digital product data
- Supports Acquisition Reform objectives
- Allows for interoperability between sites
- Uses Commercial-off-the-Shelf technology

That's ACMS!

Task

Army Materiel Command (AMC) tasked the Engineering Data Management Systems (EDMS) Functional Coordinating Group (FCG) to prepare a Performance Specification for an Army standard automated configuration management system that would meet the Army's current and future needs.

Methodology



PDM Functionality

- Product Structure/Bill of Materials
- Configuration Management
- Work/Process Flow Management
- Vaulting
- Program Management
- Imaging Services
- Parts Classification

Note: PDM systems tend to be highly customizable because of the vary nature of the product and the environment in which they operate. Few PDM systems provide the full range of functionality given above. All systems perform some functions better than others.

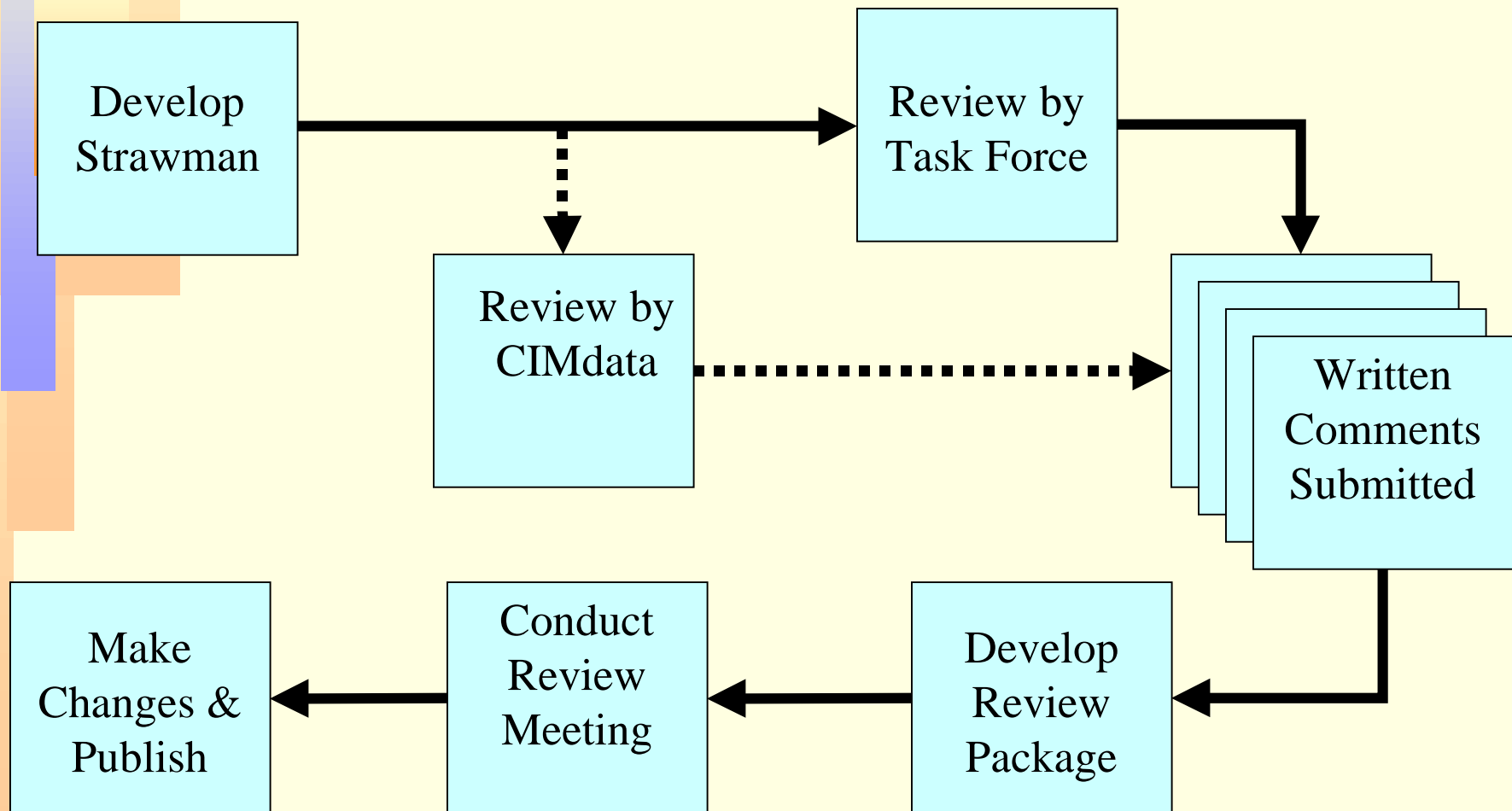
PDM Benefits

Typical PDM benefits reported by Commercial Sector

- Reduction in number of Engineering Changes 55-80%
- Reduction in Engineering Change processing time 35%
- Reduction in design/development costs 50%
- Reduction in design cycle time 20-40%
- Reduction in the number of parts 42%
- Reduction in the number of paper copies 40-90%
- Reduction in the number of document control staff 30%
- Reduction in document release time 60%
- Reduction in document request time 99%
- Reduction in manufacturing costs 30%



Review Process



ACMS Vision

ACMS will:

- Provide the **required data** when it is needed and in a form that the user can apply to accomplish the mission.
- Operate in a diverse Army environment, integrate with other MSC business processes, and communicate with other MSC, government and industry information management systems.

Required Data

Required data is all product data, consisting of documents and metadata, required to specify, design, analyze, manufacture, maintain, sustain, test, inspect and dispose of the product over its entire life cycle.

Documents

- Drawings
- Reports
- Databases
- Application software
- Engineering designs
- etc.

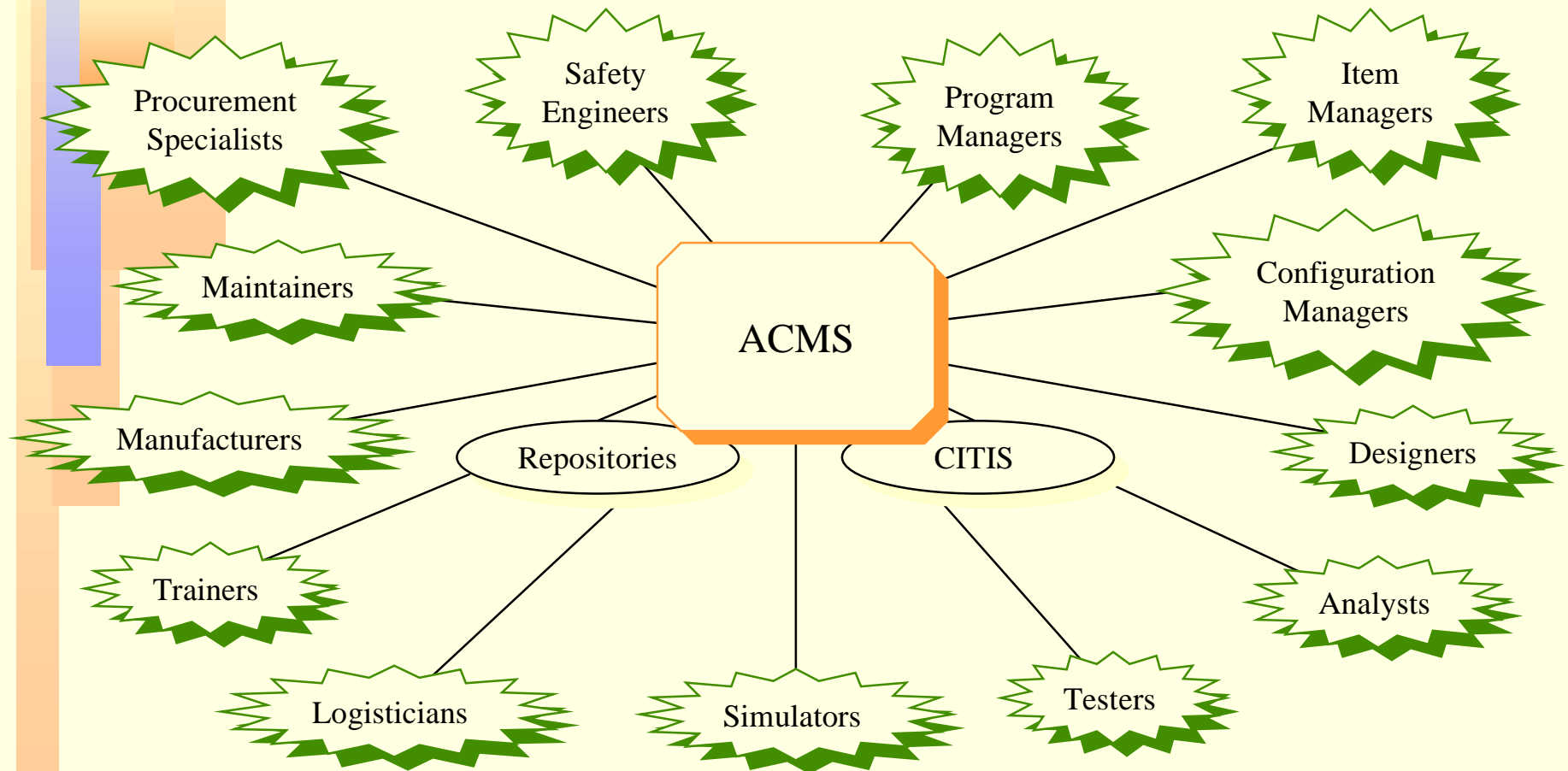
Metadata

(data about the documents)

- Identifier
- Document location
- Revision level
- Owner
- Author
- Relationship to products
- Relationship to other documents
- etc.



ACMS User Communities



ACMS Operational Requirements

Product Data Management

- Product Data Control
- Workflow Management
- Product Structure Management
- Program Management
- Imaging Services
- Data Translation
- System Administration

Configuration Management

- CM Data exchange
- Configuration Planning
- Configuration Identification
- Configuration Audit
- Configuration Control
- Status Accounting

Tech Loop

- Tech Loop Creation and Maintenance
- Support Tech Loop Reviews
- Generate Tech Loop Reports



Product Data Management

■ Product Data Control

- data storage
- access control
- data locating
- release and metadata management
- audit history

■ Workflow Management

- workflow definition
- workflow execution

■ Product Structure Management

- product structure creation and maintenance
- viewing and reporting

■ Program Management

■ Imaging Services

■ Data Translation

■ System Administration

- user authorization and management
- distributed data environment management
- archive, backup and restore management
- tailoring
- system security and monitoring
- performance monitoring



Status Accounting

3.1.2.6

Status accounting requirements

3.1.2.6.1 Record field configuration. ACMS shall provide the capability to record, retrieve, and display "as built" and "as modified" configurations resulting from the installation and removal of assemblies, components, parts, and material whether serialized or tracked by lot or batch.



Support Tech Loop Reviews

3.1.3.2 Support Tech Loop reviews

3.1.3.2.1 Compare baselines. ACMS shall provide the capability to compare baselines established as part of a Tech Loop review and identify differences (see Configuration Control Requirements "Store Baselines" and "Perform Baseline Compare").

3.1.3.2.3 Support HAZMAT screening. ACMS shall provide the capability to assign, record, and display metadata and unique identifiers in support of the hazardous material screening during Tech Loop review (for example, electronic bulletin board, status forms, internal messaging, alternate solutions).



Key Elements of ACMS Performance Specification

- Section 3 Requirements
 - Operational
 - Product Data Management
 - Configuration Management
 - Tech Loop
 - Interface
 - External
 - Internal (none)
 - User
 - Ownership and support
 - Operational Environment
 - Client workstation
 - Network
 - Server

Key Elements of ACMS Performance Specification

■ Section 6 Notes

- Identifies requirements that can't be met by COTS today
- Identifies requirements that are
 - enterprise wide
 - enterprise wide but require tailoring to meet site specific environment
 - command unique

Key Elements of ACMS Performance Specification

■ Appendices

- A - ACMS Concept Overview
- B - ACMS Support of Army Product and Data Life Cycles
- C - ACMS Support for Select Business Processes
- D - Glossary
- E - Acronyms



External Interface

3.2.1 External interface requirements

3.2.1.1 Process data information packets. For requirements pertaining to exchanging MIL-STD-2549 Data

3.2.1.3 Provide generic API. ACMS shall provide a published and supported Application Program Interface (API) that allows external applications to invoke all ACMS functions.

DEAS, CADENCE, Interleaf, MS Word, WordPerfect, Microstation, MS Excel, OrCad, CAM 350, Anvil, Mentor, EMS, MS Project and MS Power Point. (See paragraph 6.2.4. This requirement must be tailored by the implementing command at the time of acquisition.)

3.2.1.5 Interface with MEARS. ACMS shall be capable of dynamic interface (see Appendix D) with the Multi-user Engineering Change Proposal Automated Review System (MEARS) to exchange engineering change actions and associated metadata.

3.2.1.6 Interface with ECALS. ACMS shall be capable of dynamic interface with the Engineering Changes at Light Speed (ECALS) system to exchange engineering change actions and associated metadata.

3.2.1.7 Interface with CARS. ACMS shall be capable of dynamic interface with the Computer Aided Requirements System (CARS) to exchange engineering change actions and associated metadata.

3.2.1.8 Interface with PC-JEDMICS. ACMS shall be capable of dynamic interface with the Personal Computer-based JEDMICS (PC-JEDMICS).



User Interface

3.2.3 User interface requirements

3.2.3.1 Provide on-line help. The ACMS user interface shall provide context-sensitive, indexed, and searchable on-line help to users.

3.2.3.5 Provide web-browser interface. ACMS shall provide a web-browser user interface with full ACMS functionality.



Long-term ACMS Requirements

Paragraph Number	Requirement Title
3.1.1.1.3.5	Navigate non-host site product structures
3.1.1.1.3.6	Search non-host site product structures
3.1.1.1.3.7	Provide non-host site product data retrieval
3.1.1.5.1	Add translators
3.1.1.5.3	Provide automatic translation services
3.1.1.5.4	Provide default translation parameters
3.1.1.5.5	Translate product data
3.1.1.7.2.2	Manage multiple PDM systems
3.1.2.1.1	Process data information packets
3.2.1.1	Process data information packets
3.2.1.16	Interface with JCALS Workflow Manager



Performance Specification

- Defines functional requirements
- Follows industry direction of “product focus” vs “document focus”
- Prepared by the CM experts within Army
- Suitable for evaluation and procurement of a Product Data and Configuration Management system
- Enables interoperability and standardization among Army organizations



Summary

- The lack of good data management capabilities is costing the Army a lot of money.
- Good Configuration Management is the key to data access and currency
- The ACMS will gain control over data and Army products; and will provide the capability to improve our business processes
- Private industry experience shows significant cost savings can result

Next Steps

- Publish ACMS Performance Specification
- Build “customer” and “stakeholder” support
- Develop economic impacts
- Plan the implementation of ACMS
- Obtain Resources to accomplish the above

Publish Specification

- Publish as an Army Specification
 - AMCOM as the preparing activity
 - EDMS FCG as the agent
- Forward to DoD for their consideration as a DoD Specification

Build “Customer” and “Stakeholder” Support

■ Already Briefed

- Army Paperless Office IPT
- Army Information Management Users Conference
- IOC/ACALA Acquisition Reform Day
- JEDMICS Users' Meeting
- Logistics Community Manager
- Logistics Systems Re-Invention Office

■ Plan to Brief

- Dr. Fallin

■ Could or Should brief

- AMC Logistics community
- AMC CIO
- AMC CG

Develop Economic Impacts

- MEA has agreed to assist the Task Force by beginning to document some of the economic impacts ACMS could have
- JEDMICS is funding MEA to document their economic analysis and has agreed to have MEA help us out
- MEA will start by
 - quantifying economic impacts associated with problems we have identified in the current Army environment and then
 - performing FEA/COEA to quantify costs and benefits of ACMS

Plan the Implementation of ACMS

- CBDCOM PDM Implementation Status
- CECOM PDM Implementation Status
- TACOM ACMS IPT
- Proposed AMC ACMS Implementation Strategy



TACOM IPT Status
20 May 1998
Patricia Martinez - TACOM WRN

Tank-automotive & Armaments COMmand

Committed to Excellence



Vision

- The vision is to acquire an ACMS which is seamlessly integrated with an Integrated Data Environment (IDE) in support of integrated business processes.



Mission

- The mission of the IPT is to serve as TACOM's functional proponent for the development and implementation of ACMS and assure that all business processes and functional requirements are identified in order to successfully select, field, and maintain the system.



Objectives

- Develop a strategy to reengineer business processes to take advantage of ACMS capabilities.
- Support a paperless acquisition process
- Reduce costs associated with Engineering Data Management
- Develop a plan to migrate legacy data to ACMS structure
- Insure all customers' and suppliers' requirements are coordinated



Strategy

- The IPT will use available commercial products to achieve its objectives.
- Insure that the ACMS system will meet the requirements of the performance specification prepared by AMC's functional working group and appropriate for all three TACOM sites.
- Insure compatibility with appropriate industry standards, DoD CALS and STEP. Ensure interoperability with other available commercial ACM systems.
- Closely coordinate with the existing security working groups on security of data.
- Coordinate requirements and strategy with other MSCs through the AMC EDMS FCG.



IPT Membership

Membership will be comprised of subject matter experts in affected business processes from the following:

- TARDEC
 - ARDEC
 - ACALA
 - CIO
 - PEO-GCSS
 - DSA
 - IMMC
 - ACQ Center
 - PM EDMS (advisory member)
- As Needed:
- Depots
 - DLA
 - Other external partners from Government and Industry



Status

- Market Survey - May 98
- Solicitation - August 98
- Award - Jan 99
- System Production 2000



What's Next

- Acquire Funding
- Become pilot site for AMC implementation



ACMS



EDMS PMO Recommended Implementation Strategy

- Strategy
- Milestones
- Funding Requirements



ACMS



Strategy

- The EDMS PMO will issue a contract task for a full analysis of available COTS/ GOTS packages with system(s) and implementation recommendations.
 - Task issued on GSA FSS or BPA contract.
 - EDMS FCG Task Force invited to participate in SOW preparation.
- The EDMS PMO will lead the evaluation of recommendations including application software test for system(s) selection.
 - EDMS FCG Task Force invited to participate in the evaluation and selection.
- The EDMS PMO will brief the solution to the FCG and to AMC HQ.
- The EDMS PMO will issue an implementation/integration contract for:
 - HW/SW Purchases (as required).
 - Tailoring for ARMY and MSC unique requirements
 - Data Conversion
 - Installation
 - Training



ACMS



Milestones and Funding

- ANALYSIS MILESTONES
 - 5 weeks for contract award
 - 1 month for contractor preparation
 - 6 months for contractor analysis
 - 2 months for government evaluation and selection
- FUNDING REQUIRED
 - Analysis/recommendation task - \$xxx
 - Implementation funds must be pursued parallel to the analysis task.

Task Force Recommendations

- Task Force has approved the ACMS Performance Specification and recommends publishing with limited coordination
- AMC approve the recommended ACMS Implementation Strategy
- AMC determine funding methodology (implementation depends upon funding availability)

Task Force Recommendations (cont.)

- AMC, EDMS FCG and EDMS PMO to brief CG, TACOM
 - obtain concurrence on implementation strategy
 - agreement to be first site from central implementation plan
- AMC issue policy guidance
 - that requires the use of the ACMS Performance Specification and the central implementation plan for all new AMC CM, DM and PDM systems acquisitions
 - for contractual application in the acquisition of electronic data

For Additional Information

Visit the ACMS Web site

www-iaa.ria.army.mil/ai/eng_data/acms/acms_frameset1.html

Better! Faster! Cheaper!

Appendix D

Disposition of Recommended Changes to Section 6, Table III

ACMS Section 6, Table III Review

Requirement Number: 3

Title: REQUIREMENT

Type Requirement:

Original Requirement Text:

This section states ACMS performance requirements. Paragraph numbers are assigned to each requirement to support testing and traceability. The ACMS performance requirements define what operational functions the system must be able to perform, what interfaces must be provided, what ownership and support requirements must be met, and what environmental requirements will constrain ACMS operations.

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☒

Recommended Requirement:

This section states ACMS performance requirements. Paragraph numbers are assigned to each requirement to support testing and traceability. The ACMS performance requirements define what operational functions the system must be able to perform, what interfaces must be provided, what ownership and support requirements must be met, and what environmental requirements will constrain ACMS operations. A strategy for tailoring the following requirements to meet unique command environmental constraints and performance requirements is given in section 6.2.4.

Reason for change:

Add a general statement that refers reader to section 6 for how to tailor the requirements.

Disposition: Change as Reason Stated

Accepted Requirement Type:

Accepted Requirement:

This section states ACMS performance requirements. Paragraph numbers are assigned to each requirement to support testing and traceability. The ACMS performance requirements define what operational functions the system must be able to perform, what interfaces must be provided, what ownership and support requirements must be met, and what environmental requirements will constrain ACMS operations. A strategy for tailoring the following requirements to meet Army interoperability and unique command environmental constraints and performance requirements is given in section 6.2.4.

Reason for modification:

add change for Army interoperability for clarification

ACMS Section 6, Table III Review

Requirement Number: 3.2

Title: Interface requirements

Type Requirement:

Original Requirement Text:

This section presents the following types of interface requirements:

- a. External interface requirements specify external systems with which ACMS must interact.
- b. Internal interface requirements define the interconnection of functions of functional areas within the system.
- c. User interface requirements specify or constrain content, formats, timing, and other factors associated with the interaction between ACMS and the user.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1

Title: External interface requirements

Type Requirement:

Original Requirement Text:

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.1 **Title:** Process data information packets (see 3.1.2.1.1) **Type Requirement:** Enterprise Wide

Original Requirement Text:

For requirements pertaining to exchanging MIL-STD-2549 Data Information Packets, see paragraph 3.1.2.1.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.2 **Title:** Send e-mail

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall use Simple Mail Transfer Protocol (SMTP) for interfaces with e-mail systems.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.3 **Title:** Provide generic API

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall provide a published and supported Application Program Interface (API) that allows external applications to invoke all ACMS functions.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.4 **Title:** Launch applications

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall provide the capability to launch user applications based on events, user actions, times, and/or file types. Applications that might be launched from ACMS include the following:

- a. Adobe Acrobat and Acrobat reader,
- b. AutoCAD,
- c. CADD5 5,
- d. CADAM,
- e. CATIA,
- f. UG,
- g. HPME30,
- h. Pro/Engineer,
- i. I-DEAS,
- j. CADENCE,
- k. Interleaf,
- l. MS Word,
- m. WordPerfect,
- n. Microstation,
- o. MS Excel,
- p. OrCad,
- q. CAM 350,
- r. Anvil,
- s. Mentor,
- t. EMS,
- u. MS Project, and
- v. MS Power Point.

(See paragraph 6.2.4. This requirement must be tailored by the implementing command at the time of acquisition.)

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☒

Recommended Requirement:

ACMS shall provide the capability to launch user applications based on events, user actions, times, and/or file types. Applications that must be launched from ACMS include the following:

- a. Adobe Acrobat and Acrobat reader,
- b. MS Word,
- c. WordPerfect,
- d. MS Excel,
- e. MS Power Point.

Reason for change:

Re-written so that Enterprise wide requirements are listed with the list of site specific programs to be added later.

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS shall provide the capability to launch user applications based on events, user actions, times, and/or file types. Applications that must be launched from ACMS include the following: readers, viewers, word processors, spreadsheets, and CAD packages.

Reason for modification:

More generic reference preferred to specific software packages in original requirement.

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.5 **Title:** Interface with MEARS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface (see Appendix D) with the Multi-user Engineering Change Proposal Automated Review System (MEARS) to exchange engineering change actions and associated metadata.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Command Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Since ACMS operational requirements contain the requirements for ECP processing, this requirement could be considered site selectable.

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.6 **Title:** Interface with ECALS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface with the Engineering Changes at Light Speed (ECALS) system to exchange engineering change actions and associated metadata.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Command Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Since ACMS operational requirements contain the requirements for ECP processing, this requirement could be considered site selectable.

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.7 **Title:** Interface with CARS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface with the Computer Aided Requirements System (CARS) to exchange engineering change actions and associated metadata.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Command Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Only one command is using this system.

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.8

Title: Interface with PC-JEDMICS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface with the Personal Computer-based JEDMICS (PC-JEDMICS).

Change Type Requirement Needed? ☒

Recommended Type Requirement: Enterprise Unique

Change to Requirement Needed? ☒

Recommended Requirement:

ACMS shall be capable of dynamic interface with the following viewer packages:

a. ImageR.

Reason for change:

PC-JEDMICS can and is being used to up load information to JEDMICS. If one of the basic tennents of CM is to make sure there is no back door to JEDMICS, we may need to reconsider this requirement. The portion of PC-JEDMICS that we want to have as an interface is ImageR. Need to discuss in conjunction with 3.2.1.20, Interface with TACOM/ARDEC EDMD Viewer. Why do viewers require a dynamic interface? Why shouldn't they be listed under programs to be launched?

Disposition: Change as Reason Stated

Accepted Requirement Type:

Accepted Requirment:

delete this requirement.

Reason for modification:

delete requirement and other citations e.g. test plan, table 3 in section 6 and any other references. Change in launch requirement 3.2.1.4

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.9 **Title:** Interface with CCSS 404

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading data from the Command Commodity Standard System (CCSS) 404 application.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

ACMS shall be capable of batch loading data from the Commodity Command Standard System (CCSS) 404 application.

Reason for modification:

Not used at all commands. Many commands use 404 application. Therefore change type of requirement to command unique. Need to do word search for Command Commodity and change to Commodity Command

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.10 **Title:** Interface with CCSS for DFARS Appendix E

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading data from CCSS for DFARS Appendix E Screening Questionnaire.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

Change type to command unique per AMCOM requirement

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.11 **Title:** Interface with CCSS for Sector 2800

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading data to/from CCSS for Sector 2800.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

Change type to command unique per AMCOM requirement

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.12 **Title:** Interface with CCSS for Competition Management

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading data from CCSS for Competition Management.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

Change type to command unique per AMCOM requirement

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.13 **Title:** Interface with Flight Safety

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading data from the Flight Safety Parts database.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Command Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

AMCOM is the only MSC that needs access to the Flight Safety Parts Database thus making it Command Unique.

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.14 **Title:** Interface with IHS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading metadata from Information Handling Services (IHS).

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

AMCOM requirement

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.15 **Title:** Interface with DoDISS Assist

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of batch loading metadata from DoDISS Assist.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

not every command uses DODISS assist

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.16 **Title:** Interface with JCALS Workflow Manager

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of a dynamic interface with JCALS Workflow Manager.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.17 **Title:** Interface with JEDMICS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface with JEDMICS.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.18 **Title:** Interface with Field and Depot Maintenance Systems

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of interfacing/batch loading field and depot maintenance data systems/data. An example is the Aviation Maintenance Data Management System.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS shall be capable of interfacing/batch loading field systems/data. An example is the Aviation Maintenance Data Management System.

ACMS shall be capable of interfacing/batch loading depot maintenance systems/data . An example is the Standard Depot System.

Reason for modification:

Each MSC, and LOGSA needs to identify requirements. Suspense two weeks, 2 Jun 98. We need to break this into two requirements. One is for field maintenance. The Other is for Depot Maintenance. Depot maintenance is enterprise unique. Field Maintenance is command unique

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.19 **Title:** Update PASS

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall provide the capability to update the Procurement Aging and Staging System (PASS) at pre-determined processing points via a dynamic interface.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: Change as Reason Stated

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

command unique

ACMS Section 6, Table III Review

Requirement Number: 3.2.1.20 **Title:** Interface with TACOM/ARDEC EDMD Viewer **Type Requirement:** Enterprise Wide

Original Requirement Text:

ACMS shall be capable of dynamic interface with the TACOM-ARDEC Engineering Data Management Directorate (EDMD) Viewer.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:**

Change to Requirement Needed? ☒

Recommended Requirement:

Delete this requirement.

Reason for change:

Either add to 3.2.1.8 as an enterprise requirement or let site add at time of acquisition.

Disposition: Accept Recommendation

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3

Title: User interface requirements

Type Requirement: Enterprise Wide

Original Requirement Text:

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3.1 **Title:** Provide on-line help

Type Requirement: Enterprise Wide

Original Requirement Text:

The ACMS user interface shall provide context-sensitive, indexed, and searchable on-line help to users.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3.2 **Title:** Provide on-line documentation

Type Requirement: Enterprise Wide

Original Requirement Text:

The ACMS user interface shall provide users the ability to view ACMS documentation on-line, such as, user and administrator manuals.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3.3 **Title:** Include help table of contents, examples, and demonstration **Type Requirement:** Enterprise Wide

Original Requirement Text:

ACMS shall provide on-line help that includes a Table of Contents, Examples, and Demonstrations.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3.4 **Title:** Provide graphical user interface

Type Requirement: Enterprise Wide

Original Requirement Text:

The predominate ACMS user interface shall be a graphical user interface.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.2.3.5 **Title:** Provide web-browser interface

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall provide a web-browser user interface with full ACMS functionality.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.3

Title: Ownership and support requirements

Type Requirement:

Original Requirement Text:

This section specifies user skill requirements, system training requirements, system maintenance requirements, and system performance requirements.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.3.1

Title: Require minimal basic training

Type Requirement: Enterprise Wide

Original Requirement Text:

Training of a basic ACMS user shall require no more than three work days. After training, the basic user should be able to sign on to the system, navigate product structures, locate and retrieve data, and execute tasks received from a workflow.

Change Type Requirement Needed? ☒

Recommended Type Requirement: Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - no more than three work days.

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

consensus that this is enterprise wide

ACMS Section 6, Table III Review

Requirement Number: 3.3.2

Title: Require minimal administrative training

Type Requirement: Enterprise Wide

Original Requirement Text:

Training in administration of ACMS shall require no more than 10 work days. This training shall encompass all functionality available to administrative users.

Change Type Requirement Needed? ☒

Recommended Type Requirement: Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - no more than 10 work days

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

consensus enterprise wide

ACMS Section 6, Table III Review

Requirement Number: 3.3.3

Title: Require minimal downtime

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall require no more than 4 hours a week of scheduled administrative downtime for routine maintenance and backup activities.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☒

Recommended Requirement:

Reason for change:

Site determined parameter - no more than 4 hours a week

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

ACMS shall have an on line back up capability.

Reason for modification:

Discussion on percentage or 4 hours either duty hours or off line. No need to define core hours for enterprise and core hours for site, because we reached consensus that we need on line back up.

Need to change in test table. Need to change title to "On line backup" as a separate action

ACMS Section 6, Table III Review

Requirement Number: 3.3.4

Title: Require minimal restoration time

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS restorations from backups shall take no longer than 40 hours given a database of 11 million records.

Change Type Requirement Needed? ☒

Recommended Type Requirement: Enterprise Unique

Change to Requirement Needed? ☒

Recommended Requirement:

Reason for change:

Site determined parameter - no longer than 40 hours given a database of 11 million records

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS COOP restorations shall take no longer than 40 hours given a database of 11 million records.

Reason for modification:

change required to focus on COOP

ACMS Section 6, Table III Review

Requirement Number: 3.3.5

Title: Meet performance goals

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall demonstrate the following performance characteristics on stored data that is isolated from the organization's general purpose wide area network:

- a. Product Structure Navigation - 1 second,
- b. Internally retrieve/view simple documents - 5 seconds,
- c. Internally retrieve/view raster drawings - 5 seconds,
- d. Internally retrieve/view engineering models - 5 seconds,
- e. Change data object attributes - 1 second,
- f. System Navigation - 1 second,
- g. Simple Queries - 1 second, and
- h. Complex Queries - 5 seconds.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameters -

- a. Product Structure Navigation - 1 second,
- b. Internally retrieve/view simple documents - 5 seconds,
- c. Internally retrieve/view raster drawings - 5 seconds,
- d. Internally retrieve/view engineering models - 5 seconds,
- e. Change data object attributes - 1 second,
- f. System Navigation - 1 second,
- g. Simple Queries - 1 second, and
- h. Complex Queries - 5 seconds.

Disposition: Accept Recommendation

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

Reason for modification:

Needs to be tailorable for sites.

ACMS Section 6, Table III Review

Requirement Number: 3.3.6

Title: Refresh distributed data

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall provide the capability to refresh distributed data records based on system administrator-specified frequencies, but not less than on a daily basis.

Change Type Requirement Needed? ☒

Recommended Type Requirement: Enterprise Unique

Change to Requirement Needed? ☒

Recommended Requirement:

Reason for change:

Site determined parameter - not less than on a daily basis

Disposition: Accept Recommendation

Accepted Requirement Type:

Accepted Requirement:

delete

Reason for modification:

more applicable to replicated data than distributed data.

ACMS Section 6, Table III Review

Requirement Number: 3.3.7

Title: Generate reports

Type Requirement: Enterprise Wide

Original Requirement Text:

Report Type	<250	250 - 1000	1000 - 5000
Generation Breakdown List (GBL)	1 minute	3 minutes	2.5 hours
Procurement Technical Data Package List (TDPL)	1 minute	3 minutes	2.5 hours
CM TDPL	1 minute	3 minutes	2.5 hours
Engineering Data List (EDL)	1 minute	3 minutes	2.5 hours
Parts List	1 minute	1 minute	1 minute

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameters

Report Type	Number of documents/parts		
	<250	250 - 1000	1000 - 5000
Generation Breakdown List (GBL)	1 minute	3 minutes	2.5 hours
Procurement Technical Data Package List (TDPL)	1 minute	3 minutes	2.5 hours
CM TDPL	1 minute	3 minutes	2.5 hours
Engineering Data List (EDL)	1 minute	3 minutes	2.5 hours
Parts List	1 minute	1 minute	1 minute

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS shall demonstrate runtime performance for standard reports, AMC wide reports, and MSC unique reports as follows:

		Number of documents/parts	
Report Type	<250	250 - 1000	1000 - 5000
Generation Breakdown List (GBL)	1 minute	3 minutes	2.5 hours
Procurement Technical Data Package List (TDPL)	1 minute	3 minutes	2.5 hours
CM TDPL	1 minute	3 minutes	2.5 hours
Engineering Data List (EDL)	1 minute	3 minutes	2.5 hours
Parts List	1 minute	1 minute	1 minute

Reason for modification:

Site tailorable. Change title to "Runtime performance for reports"

ACMS Section 6, Table III Review

Requirement Number: 3.3.8

Title: Be Year 2000 compliant

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be Year 2000 compliant.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type: Enterprise Wide

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4

Title: Operating environment requirements

Type Requirement:

Original Requirement Text:

This section specifies requirements constraining the environment under which the ACMS will be expected to operate. The environmental constraints are organized into the following subsections: Client workstation requirements, Network requirements, and Server requirements. All of the following requirements must be tailored by the implementing command at the time of acquisition. See paragraph 6.2.4.

Change Type Requirement Needed? ☐ **Recommended Type Requirement:**

Change to Requirement Needed? ☒

Recommended Requirement:

This section specifies requirements constraining the environment under which the ACMS will be expected to operate. The environmental constraints are organized into the following subsections: Client workstation requirements, Network requirements, and Server requirements.

Reason for change:

Reference to 6.2.4 has been done at the beginning of section 3.

Disposition: Accept Recommendation

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4.1

Title: Client workstation requirements

Type Requirement:

Original Requirement Text:

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4.1.1 **Title:** Support client workstation: platform type

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of providing client functionality and performance as described in this specification on the following platforms:

- a. IBM compatible PCs running MS Windows 3.x, 95, and NT operating systems;
- b. Silicon Graphics workstations running UNIX/IRIX;
- c. Sun workstations running Solaris;
- d. HP/Apollo workstations running HP-UX;
- e. Macintosh;
- f. Intergraph workstations running CLIX; and
- g. X-Terminals running under IRIX/UNIX/Solaris operating systems.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Other client workstation platform types may be added to meet site specific requirements.

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

No functional requirement for clients at MSCs. PDM vendors need to support only Web clients.

ACMS Section 6, Table III Review

Requirement Number: 3.4.1.2 **Title:** Support client workstation: minimum memory **Type Requirement:** Enterprise Wide

Original Requirement Text:

ACMS shall be capable of providing client functionality and performance as described in this specification on platforms with at least 100 megabytes of disk storage and at least 32 megabytes of random access memory (RAM).

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - at least 100 megabytes of disk storage and at least 32 megabytes of random access memory (RAM)

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

No functional requirement for clients at MSCs

ACMS Section 6, Table III Review

Requirement Number: 3.4.1.3 **Title:** Support client workstation: minimum processor speed **Type Requirement:** Enterprise Wide

Original Requirement Text:

ACMS shall be capable of providing client functionality and performance as described in this specification on platforms with processor speeds of at least 90 megahertz.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - at least 90 megahertz

Disposition: Accept Recommendation

Accepted Requirement Type: Command Unique

Accepted Requirement:

Reason for modification:

No functional requirement for clients at MSCs

ACMS Section 6, Table III Review

Requirement Number: 3.4.2

Title: Network requirements

Type Requirement:

Original Requirement Text:

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4.2.1 **Title:** Support network protocols

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of operating in a client-server Ethernet networked environment using TCP/IP, NFS, or IPX/SPX.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - TCP/IP, NFS, or IPX/SPX.

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS shall be capable of operating in a client-server networked environment using TCP/IP, NFS, or IPX/SPX.

Reason for modification:

ACMS has to run on a network, but that is dependent on site constraints. Delete ethernet constraint.

ACMS Section 6, Table III Review

Requirement Number: 3.4.2.2 **Title:** Support network operating systems

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of operating in a client-server Windows NT, Banyan Vines, or Novell networked environment.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - Windows NT, Banyan Vines, or Novell networked environment

Disposition: Accept Recommendation

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4.2.3 **Title:** Support maximum number of users

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS shall be capable of supporting up to 4,000 users total and up to 500 users simultaneously at any one implementation.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameters - up to 4,000 users total and up to 500 users simultaneously

Disposition: Accept Recommendation

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS shall be capable of supporting up to 4,000 users total and up to 200 users simultaneously at any one site.

Reason for modification:

Simultaneous users can be counted based on simultaneous queries against the database, however for this requirement simultaneous users are defined as active logons.

ACMS Section 6, Table III Review

Requirement Number: 3.4.3

Title: Server requirements

Type Requirement:

Original Requirement Text:

Change Type Requirement Needed? ☐ Recommended Type Requirement:

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Disposition: No Change

Accepted Requirement Type:

Accepted Requirement:

Reason for modification:

ACMS Section 6, Table III Review

Requirement Number: 3.4.3.1 **Title:** Support server: platform types

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS server software shall be capable of operating on the following platforms:

- a. Sun workstations running UNIX;
- b. Silicon Graphics workstations running UNIX;
- c. IBM Compatible Pentium PCs running Windows NT Server; and
- d. Hewlett Packard HP9000/800 K Series running HP-UX.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Are these all enterprise wide requirements that then might have additional operating environments added to them?

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS server software shall be capable of operating on the following platforms: (for example, Sun workstations running UNIX, Silicon Graphics workstations running UNIX, IBM Compatible Pentium PCs running Windows NT Server; or Hewlett Packard HP9000/800 K Series running HP-UX.)

Reason for modification:

tailorable for each site

ACMS Section 6, Table III Review

Requirement Number: 3.4.3.2 **Title:** Support server: minimum disk space

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS server software shall be capable of operating on platforms with disk storage of at least 35 gigabytes, excluding data file storage requirements.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - at least 35 gigabytes

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS server software shall be capable of operating on platforms with disk storage of 240 gigabytes, for system software and data file storage requirements.

Reason for modification:

Need to specify target servers within AMC. Change title from minimum to "Support server: disk space."

ACMS Section 6, Table III Review

Requirement Number: 3.4.3.3 **Title:** Support server: minimum RAM

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS server software shall be capable of operating on platforms with RAM of at least 2.1 gigabytes.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - at least 2.1 gigabytes

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS server software shall be capable of operating on platforms with RAM of 2.1 gigabytes.

Reason for modification:

Need to specify target servers within AMC. Need to change title from minimum to "Support server: RAM".

ACMS Section 6, Table III Review

Requirement Number: 3.4.3.4 **Title:** Support server: minimum processor speed

Type Requirement: Enterprise Wide

Original Requirement Text:

ACMS server software shall be capable of operating on platforms with aggregate processing speeds of at least 800 megahertz.

Change Type Requirement Needed? ☒ **Recommended Type Requirement:** Enterprise Unique

Change to Requirement Needed? ☐

Recommended Requirement:

Reason for change:

Site determined parameter - at least 800 megahertz.

Disposition: Change as Reason Stated

Accepted Requirement Type: Enterprise Unique

Accepted Requirement:

ACMS server software shall be capable of operating on platforms with aggregate processing speeds of 800 megahertz.

Reason for modification:

Need to specify target servers within AMC. Change title from minimum to "Support server: Processor Speed"